WHAT IS CLAIMED IS:

1. A method for manufacturing a ball grid array package, comprising:

providing a flip chip;

coupling the flip chip to a first side of a substrate;

encapsulating the flip chip with a molding;

attaching a plurality of solder balls to a second side of the substrate; and

cutting the substrate to produce the ball grid array package.

2. The method of Claim 1, further comprising transferring the ball grid array package to a shipping tray.

3. The method of Claim 1, wherein providing the flip chip comprises forming an integrated circuit die on a wafer, scribing the wafer to define edges of the flip chip, and coupling a plurality of solder bumps to the integrated circuit die.

4. The method of Claim 1, wherein coupling the flip chip to the first side of the substrate comprises soldering a plurality of solder bumps coupled to the flip chip to a plurality of solder pads on the first side of the substrate.

5. The method of Claim 1, wherein encapsulating the flip chip with the molding comprises encapsulating the flip chip by utilizing a transfer molding process.

6. The method of Claim 1, wherein encapsulating the flip chip with the molding comprises encapsulating the flip chip with an epoxy.

7. The method of Claim 1, wherein cutting the substrate comprises:

cutting the substrate in a first direction; and

after cutting the substrate in the first direction, cutting the substrate in a second direction substantially perpendicular to the first direction.

8. A method for manufacturing a plurality of ball grid array packages, comprising:

providing a plurality of flip chips;

coupling the flip chips to a first side of a substrate;

encapsulating the flip chips with a molding;

attaching a plurality of solder balls to a second side of the substrate; and

cutting the substrate to produce the ball grid array packages.

9. The method of Claim 8, wherein providing the plurality of flip chips comprises forming a plurality of integrated circuit dies on a wafer, scribing the wafer to define edges of the integrated circuit dies, and coupling a plurality of solder bumps to the integrated circuit dies.

10. The method of Claim 8, coupling the flip chip to the first side of the substrate comprises soldering a plurality of solder bumps coupled to the flip chip to a plurality of solder pads on the first side of the substrate.

11. The method of Claim 8, wherein encapsulating the flip chips with the molding comprises encapsulating substantially all of the flip chips by utilizing a transfer molding process.

12. The method of Claim 8, wherein encapsulating the flips chips with the molding comprises encapsulating the flip chips with an epoxy.

13. The method of Claim 8, wherein cutting the substrate to produce the ball grid array packages comprises:

cutting the substrate in a first direction with a plurality of cutting blades;

rotating the substrate substantially 90 degrees with respect to the cutting blades; and

cutting the substrate in a second direction substantially 90 degrees to the first direction.

14. A system for manufacturing a plurality of ball grid array packages, comprising:

a substrate having a first side and a second side;

a plurality of flip chips coupled to the first side of the substrate;

a molding encapsulating the flip chips;

a plurality of solder balls coupled to the second side of the substrate; and

a cutting machine operable to singulate the ball grid array packages by cutting the substrate.

15. The system of Claim 14, further comprising a shipping tray operable to accept the ball grid array packages for shipping.

16. The system of Claim 14, wherein the plurality of flip chips comprises a plurality of integrated circuit dies formed on a wafer, and a plurality of solder bumps coupled to the integrated circuit dies.

17. The system of Claim 14, wherein the plurality of flip chips are coupled to the first side of the substrate by soldering a plurality of solder bumps on the flip chips to a plurality of solder pads on the first side of the substrate.

18. The system of Claim 14, wherein the molding is an epoxy.

19. The system of Claim 14, wherein the cutting machine comprises a plurality of cutting blades.

20. The system of Claim 14, further comprising a work table operable to rotate the substrate at least substantially 90 degrees.